

lithium Battery
Specification

Model Number: CR2032 3V 220mAh

Prepared By	Verified By	Approved By

1. SCOPE

This specification applies to the following 3.0v lithium cell CR2032 made by Everwin Tech Co., Limited

RATINGS

TABLE I :

ITEM		UNIT	SPECIFICATIONS	CONDITIONS
Nominal voltage		V	3.0	Standard discharge
Nominal capacity		mAh	220	Standard discharge
Instantaneous short-circuit current		A	≥ 10	Time ≤ 0.5 second
Off-load voltage		V	≥ 3.2	
Storage temperature		°C	-40~60	
Standard weight		g	3	Unit cell
Service output	Initial	Standard	1030 h	Continuous discharge with load 15kΩ, till 2.0v end voltage
		Minimum	1000 h	
	After 12 months storage	Standard	980 h	
		Minimum	880 h	

TABLE II :

ITEM	CONDITIONS	CHARACTERISTICS	
Thermal durability	Kept for 20 days at 60°C±3°C, then continuously discharge with 15kΩ load till 2.0v end-voltage	Standard	980h
		Minimum	980h
Self-discharge rate	Stored for 12 months at normal temperature and humidity	$\leq 5\%$	

3.PERFORMANCE AND TEST METHODS

Unless otherwise stated, all the testing is carried out under the condition: environmental temperature, 20°C~25°C; environmental humidity, 65±20%. Please refer to Table III

4. SUGGESTIONS AND CAUTIONS

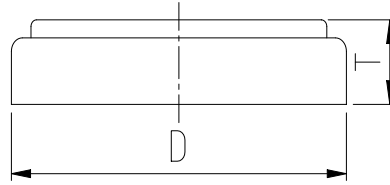
- 4.1 Install batteries correctly.
- 4.2 Ensure the contact points to be clean and conductive.
- 4.3 Do not mix different types, different brands batteries to serve together.
- 4.4 Do not heat, recharge the batteries.
- 4.5. Do not dispose of the batteries in fire.

- 4.6. Keep away from the small children, if swallowed promptly see doctor.
 4.7. Pay attention to the producing date.

TABLE III:

No	ITEM	TEST METHODS	STANDARED	
1	Dimensions	Using vernier caliper (accuracy ≥ 0.02) while avoiding short-circuit	Diameter	20-0.3mm
			Height	3.2-0.3mm
2	Off-load voltage	Using multimeter (accuracy $\geq 0.25\%$) internal resistance $\geq 1M\Omega$	≥ 3.2 v	
3	Appearance	Eyeballing	Bright, clean, no rust, no leakage, And no flaw	
4	Capacity	Continuously discharge for 8 hours with load 15k, temperature at 20~25°C, humidity at 65 \pm 20% till 2.0v end voltage	≥ 220 mAh	
5	Vibration test	Put battery on the platform of the vibrations machine, start the machine and adjust the frequency form 10 times per minute to 15 times per minute. keep it running for an hour	Characteristics keep stability	
6	Leakage at high temperature	Stored under temperature (45°C) for 30 days	Leakage rate $\leq 1\%$	
7	Over discharge Test	After 2.0v end-voltage, continuously discharged for 5 hours	No leakage allowed	

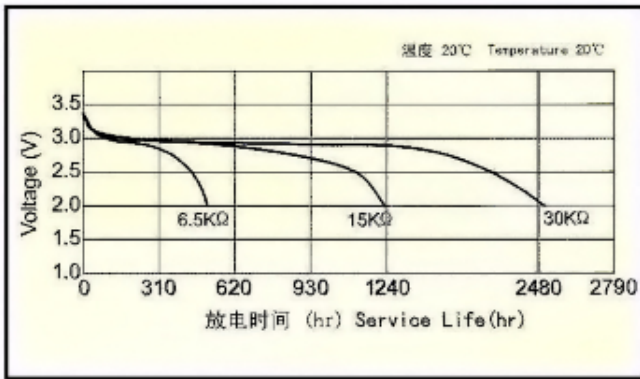
5 DRAW (unit: mm)



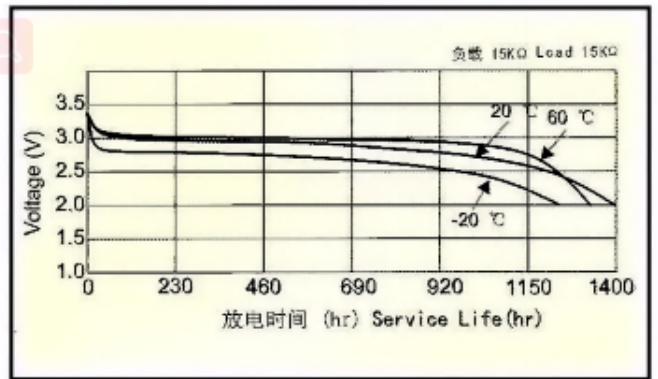
ITEM	STANDARD	
T	3.2mm	+0.20
		-0.10
D	20.0mm	+0.10
		-0.10

STANDARD CHARACTERISTICS

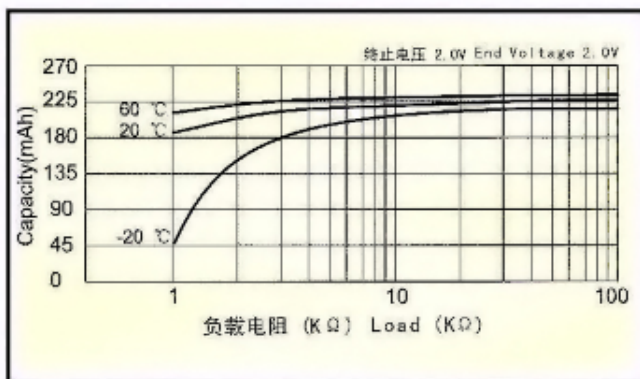
定电阻放电曲线
Discharge Characteristics



温度放电曲线
Temperature Characteristics



电阻容量曲线
Load-capacity



脉冲放电曲线
Pulse Discharge Characteristics

